

Abstracts

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asked to choose between hypothetical treatment pairs in a series of choice questions. Each choice alternative was defined by lesion severity (redness, thickness, and texture), percentage of body surface area (BSA) covered by the lesions, type of treatment (oral agent, subcutaneous injection, or phototherapy), injection discomfort or pain (if type of treatment included injections), risk of serious lung infection, and monthly out-of-pocket cost. Preference weights were estimated using mixed logit methods. Conjoint preference weights were used to calculate willingness-to-pay (WTP) for reductions in lesion severity and BSA. **RESULTS:** A total of 28,200 panel members were invited to participate in the survey. A total of 18,330 individuals responded to the invitation and 503 qualified to participate. A total of 419 PsO patients completed the survey; mean age was 54.5 years and 52% were female; 64% of patients self-reported their PsO severity as mild or mild-to-moderate; 12%, 12%, 7% and 3% of patients self-reported their PsO severity as moderate, moderate-to-severe, severe, and very severe, respectively. Patients were willing to pay up to \$486.73 per month to eliminate severe lesions covering 25% BSA on the arms and legs. Patients were willing to pay \$429.78 each month to eliminate severe lesions of 25% BSA on the torso. Patients were willing to pay \$444.80 per month to eliminate moderate lesions covering 4% BSA on the face. **CONCLUSIONS:** Individuals with PsO are willing to pay more than \$400 out-of-pocket per month to reduce lesion severity and percentage of BSA covered by the lesions.

PSY49

IMPACT OF DISEASE ON CAREER CHOICES, ABSENTEEISM, AND WORK LOSS AMONG INDIVIDUALS WITH PSORIASIS IN THE UNITED STATES

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OBJECTIVES: To determine impact of disease on career choices, absenteeism, and work loss among individuals with psoriasis (PsO). **METHODS:** A nationally representative survey was conducted in Q2 2009 of PsO sufferers. Participants were ≥ 18 years of age and reported their disease status as mild, moderate, and severe. Career choices and work productivity were assessed. Productivity was measured using the Work Productivity and Activity Impairment (WPAI) scale, which includes absenteeism, presenteeism, work productivity loss, and activity impairment. **RESULTS:** A total of 1003 patients responded to the survey (mean age was 50 years, 88% were white, and 58% were female). A higher percentage of patients with severe disease (22%) were disabled as compared with the moderate (15%) and mild (12%) groups. A significantly higher proportion of individuals with severe disease (37%) and moderate (14%) reported that PsO has affected their career choice compared to those with mild disease (4%). Similarly, a significantly higher percentage of individuals with severe (31%) and moderate (10%) disease reported that PsO affects their current career choice as compared to mild disease (3%). Among the employed, on average, PsO sufferers reported a 4% absenteeism rate, 14% presenteeism rate, and 14% productivity loss. Activity impairment, regardless of employment status, was significantly higher for the severe patients (54%; $p < 0.05$) as compared with moderate (24%) or mild (7%) sufferers. The severe disease group also reported significantly higher rates of absenteeism (21%), presenteeism (47%), and work productivity loss (47%) than their moderate or mild counterparts. **CONCLUSIONS:** PsO is a debilitating disease which impacts multiple aspects of an individual's lifestyle including career choices and physical functioning. Among the actively employed, moderate-to-severe PsO has a greater impact on their previous and current career choices as compared with patients with mild psoriasis. In addition, patients with severe PsO are associated with greater work loss and activity impairment.

SYSTEMIC DISORDERS/CONDITIONS – Health Care Use & Policy Studies

PSY50

DISPARITY IN THE MANAGEMENT OF OBESITY IN AMBULATORY SETTING: A NAMCS 2006–07 ANALYSIS

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OBJECTIVES: Disparities in anti-obesity medication use were clearly demonstrated by Cawley et al. However, the most effective interventions for obesity management combine nutrition education, diet and exercise counseling, with pharmacotherapy. Thus, the objective of this study was to identify factors associated with obesity management and identify disparities in obesity management amongst adults diagnosed with obesity. **METHODS:** The study was performed using 2006 and 2007 National Ambulatory Medical Care Survey, a cross-sectional visit level database. Patient visits (≥ 18 years) with an obesity diagnosis (ICD-9-CM: 278.00) were included in the study. Prescription of FDA approved anti-obesity medications and/or weight reduction, exercise and diet/nutrition counseling were considered as obesity management. Descriptive statistics and multivariate logistic regression were conducted to identify disparity while adjusting for age, race, sex, region, insurance status, co-morbidity and MSA. **RESULTS:** Total 113 million visits for obesity were estimated for 2006–2007. Obesity management was provided in 47.84% visits, of which medication was prescribed in 12% of visits. Adjusted analysis showed PCP's were more likely to provide obesity management (OR=1.703 CI: 1.325–2.188) than specialists. Patients from non-MSA region (OR=0.614 CI: 0.455–0.829), and older patients (OR=0.986 CI: 0.978–0.994) were less likely to receive obesity management. Patient visits that were

covered through private insurance (OR=0.317 CI: 0.166–0.606) or public insurance (OR=0.297 CI: 0.160–0.552), had a lesser likelihood to receive obesity management. Patient visits with high co-morbid conditions were more likely to receive obesity management (OR=1.641 CI: 1.085–2.481). **CONCLUSIONS:** Specialty differences in obesity management were identified, one in two patients diagnosed as obese did not receive obesity management. This suggests that, though it is a known risk factor for many other chronic illnesses, physicians still fail to prioritize obesity and provide effective management.

PSY52

URBAN GREEN SPACE AND PARK EXPENDITURES AS PREDICTORS OF URBAN OBESITY

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OBJECTIVES: The presence of parks and recreational areas (green spaces) in urban areas may facilitate increases in physical activity among urban residents and reduce the impact of chronic disease risk factors such as overweight and obesity. We hypothesize that variable rates of obesity among major metropolitan cities in the U.S. may be explained by the presence of high quality green space and recreational centers. Specifically, that parks acres and total park expenditures will predict levels of obesity. We also hypothesize that the presence of recreational centers will explain variable levels of obesity. If the presence of quality parks in urban areas is associated with lower obesity prevalence, this provides evidence for policy recommendations to reduce the adverse effects of obesity and overweight. **METHODS:** City park data for the year 2007, was linked to Behavioral Risk Factor Surveillance System SMART data from 2007 urban responses of physical activity and obesity. The total park acreage, park expenditures, and recreational centers per capita were obtained from The Trust for Public Land. Step wise linear regression modeling was used to test our hypotheses. **RESULTS:** Overall, the model significantly predicted Obesity Prevalence, with both Percent Parkland and Park Expenditures accounting for 30% of the variation in Obesity Prevalence [$R^2=0.299$, $F(2,47)=10.03$, $p < 0.001$]. Additionally, a moderate effect size was found for the relationship between Percent Obesity and both Percent Parkland and Park Expenditures ($R^2 = -0.34$, and -0.40 respectively). Once entered in the second step, Recreational Centers explained no additional variance [$R^2 = 0.299$, $F(3,46) = 6.55$, $p < 0.1001$]. **CONCLUSIONS:** Obesity prevalence is moderately explained by Percent Parkland and Park Expenditures. These findings have direct policy implications, and show that both quality and access to parks are public health initiatives that may be used to promote healthier communities.

PSY53

INTRAGASTRIC BALLOON (IGB) FOR MORBIDLY OBESE (MOP) AND SUPER OBESE PATIENTS (SOP) : SYSTEMATIC REVIEW (SR) AND HEALTH TECHNOLOGY ASSESSMENT (HTA)

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OBJECTIVES: To compile the body of evidence and produce a HTA on IGB in morbidly obese (MOP) and super obese (BMI ≥ 50) patients. To evaluate the impact on IGB on weight loss, co-morbidities (CM), reduction of post-operative complications on bariatric surgery. **METHODS:** We performed a SR on Medline and Cochrane Library among other databases, including articles published until January 2010. We searched “Gastric Balloon[Mesh]”, “intragastric balloon”, “Comparative Study [Publication Type]”, “Randomized Controlled Trial [Publication Type]”, “random*” e “systematic[sb]”. **RESULTS:** We found two SR without meta-analysis (MA), two SR with MA and two randomized controlled clinical trials (RCCT). In MOP the use of IGB does not improve the weight loss compared to diet (Level of Evidence 1b). There are no long term efficacy data available and there might be a weight gain after the IGB is withdrawn. The risk of minor complications (gastric ulcer and abdominal pain) but not of major complications (intestinal obstruction and esophageal laceration) is greater in patients using IGB (LE 1b). For SOP there is insufficient evidence to support that the use of IGB before bariatric surgery reduces the conversion rate from laparoscopic to open surgery or the intra-operative complication risks (LE 4). There is a lack of evidence on the impact of IGB use on CM such as diabetes, hypertension or sleep apnea for both MOP and SOP. **CONCLUSIONS:** For MOP there is evidence that the use of IGB does not lead to greater weight loss compared to diet and it increases the risk of minor complications (LE 1b). For SOP there is insufficient evidence of effectiveness and safety to support the use of IB as a previous step before gastric bypass surgery. For both, there is a lack of evidence on the impact of IGB on CM.

PSY54

NONSTEROIDAL ANTI-INFLAMMATORY (NSAID) PRESCRIPTION USE FOR MUSCULOSKELETAL PAIN AT FOUR PRIMARY CARE CENTERS IN SWEDEN

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OBJECTIVES: Musculoskeletal pain is experienced by more than a third of the adult population. Alleviation of pain is an important aspect of care in these patients. The aim of the present study was to assess the number of NSAID prescriptions prescribed to patients with musculoskeletal pain during 2004–2008 at 4 primary health care centres in Sweden. **METHODS:** This retrospective longitudinal study was based on primary care electronic medical records review and data for patients with any ICD diagnosis code of musculoskeletal pain and prescription of any ATC code for NSAID,

selective or non-selective and weak opioids (codeine, tramadol, dextropropoxyphene) was extracted and analysed. **RESULTS:** A total of 23 456 prescriptions were analysed, 18 187 prescribed to adults [18–64 years] and 5 269 to elderly ≥ 65 years of age [65–101 years]. The proportion of NSAID prescriptions for non-selective plus selective Cox-2-inhibitors (Coxibs), did not change during the 5-year period, 91.1, 91.3, 91.4, 92 and 91.5 % of patients were prescribed an NSAID. The proportion of prescriptions for traditional non-selective NSAIDs increased from 83.9% to 90.3 % from year 2004 to 2008 among adult patients and from 69.7% to 78.7% among elderly. The proportion of prescriptions for Coxibs decreased between 2004 and 2008 and were prescribed to 3.6 % of patients in this study in 2008. Co-prescription of gastric protective therapy was made in 12–20 % of prescriptions with no differences between NSAID, Coxibs and non-NSAID. **CONCLUSIONS:** In this review of NSAID prescription utilization among patients with a diagnosis of musculoskeletal pain shows an extensive use of anti-inflammatory agents without co-prescription of gastro-protective medication. The impact of this high utilization of NSAIDs without co-prescription of gastro-protective agents on the risk for upper gastro-intestinal complications warrants further evaluation.

PSY55

IS HOSPITAL EXPERIENCE ASSOCIATED WITH BETTER IN-HOSPITAL OUTCOMES AMONG SICKLE CELL PATIENTS WITH ACUTE CHEST SYNDROME: RESULTS FROM A NATIONAL DATABASE

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OBJECTIVES: Acute chest syndrome (ACS) is the leading cause of death and the second most common cause of hospitalization in patients with sickle cell disease (SCD), yet it is unclear whether hospital experience (i.e., volume) is associated with improved clinical and resource-use outcomes. In this study, we compared inpatient mortality, length of stay (LOS) and total costs between high- and low-SCD volume hospitals treating ACS patients. **METHODS:** Using the 2006–2007 Nationwide Inpatient Sample (NIS), we identified ACS patients based on ICD-9-CM codes 517.3 (ACS) or 486 (pneumonia) among discharges with SCD (Clinical Classification Code 61). SCD volume represented the average number of SCD discharges from a hospital per year over the 2-year study period. Given that majority of patients were treated in a relatively small number of hospitals, the top decile was selected to represent high volume hospitals. We used generalized estimating equations to evaluate whether hospital-level SCD experience was independently associated with inpatient mortality (binomial distribution, logit link), LOS (negative binomial distribution, log link) and costs (gamma distribution, log link) between volume groups while controlling for gender, age, payer, number of comorbidities, and hospital characteristics, including rural vs. urban location, teaching status, bed size, ownership type, and hospital region. **RESULTS:** Among 6,857 ACS discharges across 688 hospitals, 4154 and 2703 were treated in high- and low-volume hospitals, respectively. Median age was 22 in high-volume hospitals and 29 in low-volume hospitals. In unadjusted analyses, inpatient mortality (0.9% vs. 1.7%, $p = 0.004$), mean LOS (6.9 vs. 7.4, $p = 0.005$), and mean costs (\$11,358 vs. \$12,013, $p = 0.077$) were lower in high vs. low volume hospitals. After adjustment for patient and hospital characteristics, hospital volume was no longer significantly associated with inpatient outcomes. **CONCLUSIONS:** Hospital volume was not significantly associated with inpatient mortality, LOS, and total costs among ACS patients.

PSY56

INFLIXIMAB INDUCTION PATTERNS AND THE IMPACT ON MAINTENANCE THERAPY PATTERNS

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OBJECTIVES: To assess induction and maintenance infusion patterns of infliximab (IFX) treatment in ulcerative colitis (UC) patients receiving 1, 2, or 3 induction doses. **METHODS:** A retrospective analysis of medical claims from an administrative database was conducted for UC patients newly starting IFX. Patients were required to have age ≥ 18 yrs, 2 diagnosis codes for UC, IFX index date between September 1, 2005 and January 31, 2008, and ≥ 26 months of continuous enrollment (minimum 12 months before and 14 months after the index date). Patients with select pre-index inflammatory disorders were excluded. The analysis evaluated induction (IFX doses during first 56 days post-index) and maintenance (doses >56 days and <12 months post-induction). Persistence during maintenance was defined by a medication possession ratio (MPR) of $>80\%$. Results were stratified by the number of induction doses (1, 2, or 3). **RESULTS:** A total of 354 UC patients were included in the analyses: mean (SD) age of 44 (14) yrs; 48.3% female; 62.4% received IFX in the outpatient office setting. There were 27, 83, and 244 patients in the 1, 2, and 3 induction dose groups, respectively. The overall mean (SD) number of days during the induction period was 35 (14), and days increased with the number of induction doses. During the maintenance period, patients received an overall mean (median) of 5 (6) infusions. The cohort receiving 3 induction infusions had the highest percentage of patients with an MPR $> 80\%$. Infusion patterns for the first year post-induction were consistent with recommended prescribing information, with a median of 56 days between infusions. **CONCLUSIONS:** The majority of IFX patients received 3 induction doses. Induction and maintenance infusion patterns were consistent with prescribing recommendations, especially for those patients receiving 3 induction doses. These data support administering 3 IFX doses during induction to ensure appropriate dosing and optimal medication adherence during maintenance.

MAINTENANCE INFLIXIMAB DOSING AND ADMINISTRATION PATTERNS IN PATIENTS WITH CROHN'S DISEASE

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OBJECTIVES: U.S. Food and Drug Administration (FDA)-approved prescribing information recommends infliximab (IFX) administration at 0, 2, 6 and every 8 weeks with potential dose escalation based on patient response in Crohn's Disease (CD) patients. Minimal real world dosing data are available in this population. This study describes IFX dosing patterns in patients with CD treated in an outpatient hospital setting. **METHODS:** A retrospective longitudinal analysis using the Premier PerspectiveTM Database, a U.S.-based hospital database, was conducted. Inclusion criteria were an outpatient hospital discharge CD diagnosis between July 1, 2000 and March 31, 2008, IFX-naïve (received no IFX in the prior 180 days), and ≥ 3 IFX doses within ≤ 56 days of the index infusion. Exclusion criteria included patients with other selected inflammatory diseases. Treatment duration was defined as the time between the index and last IFX dose. Hospital outpatient dosing schedules were analyzed for the 4th through 15th IFX dose, representing the first two years of IFX maintenance treatment. **RESULTS:** A total of 1439 IFX-treated patients with CD were identified. Mean (SD) age was 42.8 (15.4) years; 59% were female. Mean (SD) treatment duration was 415 (425) days. Patients received a mean (SD) of 8.4 (7.5) IFX administrations. Mean (SD) index IFX dose was 429 (152) mg. During the initial two years of maintenance IFX administration, the highest observed mean IFX dose represented a 10% increase during the maintenance period and a 13% increase compared to the index IFX dose. Median time between administrations was 56 days for all maintenance infusions. **CONCLUSIONS:** The mean IFX dose remained between 439 and up to 483 mg throughout the maintenance treatment. Administration schedule was consistent with FDA-approved prescribing information. These data suggest that IFX dosing patterns in CD patients remain relatively stable with minimal dose escalation occurring when administered in real world outpatient hospital settings.

SYSTEMIC DISORDERS/CONDITIONS – Conceptual Papers & Research on Methods

PSY58

US COST EFFECTIVENESS ANALYSIS OF PRIMARY PROPHYLAXIS VERSUS ON-DEMAND TREATMENT IN HEMOPHILIA: DESIGN AND RATIONALE OF A COMPREHENSIVE MODEL

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OBJECTIVES: To present the design of a lifetime Markov model that compares the cost-effectiveness of primary prophylaxis versus on-demand treatment with recombinant factor VIII among children with severe hemophilia A. **METHODS:** Prophylactic infusions of rFVIII-FS have been shown to reduce the frequency of bleeding episodes and the risk of joint damage in children with hemophilia A with no pre-existing joint damage. Clinical studies have shown significant improvement in outcomes with the use of prophylactic treatment, as well as apparent gains in health-related quality of life. However, recombinant clotting factors are also associated with relatively high cost. Using a lifetime Markov model, the cost-effectiveness of primary prophylaxis treatment was compared to on-demand treatment. This model is among the few that model long-term cost and effectiveness and is unique in that it takes into account the probability of inhibitor development, use of central venous access device (CVAD), and total bleeding risk including CNS and joint bleeds. Prophylactic treatment is assumed to be from birth until 16 years of age. Built in the model were also 5 health states: being alive, surgery, inhibitor development, disability and deceased. **SUMMARY:** From this model, cost-effectiveness estimations can be made for patients receiving on-demand treatment versus primary prophylaxis. Cost-effectiveness can vary by the frequencies of events between treatment arms, age where prophylaxis begins and ends, dose/frequency of factor VIII, cost of medications and key hospital-related events, and the probability of achieving specified clinical endpoints. **CONCLUSIONS:** The strengths and distinguishing characteristics of this model versus previously published hemophilia prophylaxis models include: long-term cost and effectiveness, probability of inhibitor development, use of CVAD, and CNS bleeds. There are a few study limitations related to the lack of data for model assumptions. Obtaining stronger evidence for these parameters may substantiate or potentially improve the model results.

PSY59

USING PATIENT FOCUS GROUPS TO INFORM ECONOMIC MODELING: EXPERIENCE FROM A HEMOPHILIA PATIENT FOCUS GROUP

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BACKGROUND: Decision modeling is commonly used to assess the cost-utility of drugs or technologies. For a real-world application, models should include aspects of the disease relevant to the patient. In recent years, patient focus groups have been used to help define health utility values. **METHODS:** Hemophilia patients attending the National Hemophilia Foundation's 61st Annual Meeting were invited to participate in a focus group to inform the development of a decision model, evaluating prophylaxis